

MARKED UP VERSION OF REPLACED
ABSTRACT OF THE DISCLOSURE

This invention relates to an improved apparatus and method for electrolytic descaling of steel strips. The apparatus comprises electrodes integrated with nozzles having jet openings for dispensing electrolyte onto the surface of the steel strips. By jetting the electrolyte to the steel strip in the air and applying a voltage to the electrode, the scale on the surface of the steel strip is removed. This jetting of electrolyte reduces the size requirement of the electrolyte tank storing the electrolyte because the required quantity of electrolyte decreases. The present invention does not require immersion of the electrodes in the electrolyte and thus avoids the problem of short-circuiting that occurs with submerged electrodes. This results in a significant improvement in electric power efficiency. By individually adjusting the jet pressure of the electrolyte jets, the waving and the flexure of the steel strip is prevented and the electrodes can be arranged close to the steel strip to reduce required electric power. With the reduction in short circuit currents, many electrodes can be provided and the speed of the descaling can be increased as a result of the increase in electric current to the steel strip.

17